

REPORT ON MACHINERY.

No. 5992

No. in Survey held at *Beverley Hull*

Date, first Survey *May 4*

Last Survey *July 24* 1886

Reg. Book.

on the *Iron Screw Steamer New Zealand*

(Number of Vins *22*)

191-39

Tons *101.88*

Master *Richardson*

Built at *Beverley*

By whom built *Cochrane & Co*

When built *1886*

Engines made at *Hull*

By whom made *C D Holmes & Co*

when made *1886*

Boilers made at *Hull*

By whom made *C D Holmes & Co*

when made *1886*

Registered Horse Power *50*

Owners *Hull Steam Fishing & Ice Co (Limited)* Port belonging to *Hull*

ENGINES, &c.—

Description of Engines *Triple Compound Inverted Direct Acting Surface Condensing.*

Diameter of Cylinders *13 1/2" 19" & 32"* Length of Stroke *24"* No. of Rev. per minute _____ Point of Cut off, High Pressure *5/8* Low Pressure *1/2*

Diameter of Screw shaft *6 3/4"* Diam. of Tunnel shaft *6 1/2"* Diam. of Crank shaft journals *6 3/4"* Diam. of Crank pin *6 3/4"* size of Crank webs *5" x 7 1/2"*

Diameter of screw *8.9"* Pitch of screw *12.5" x 10.9"* No. of blades *4* state whether moveable *no* total surface *28 square ft*

No. of Feed pumps *one* diameter of ditto *2 1/2"* Stroke *14"* Can one be overhauled while the other is at work *✓*

No. of Bilge pumps *one* diameter of ditto *2 1/2"* Stroke *14"* Can one be overhauled while the other is at work *✓*

Where do they pump from *Engine room bilge & hold*

No. of Donkey Engines *one* Size of Pumps *2 1/2" x* Where do they pump from *Engine room bilge Hold*

Hotwell Sea. Discharges to Boiler, Condenser, Deck & Overboard. Also a 3" Venturi
jector with suction in engine room bilge and discharge on deck

Are all the bilge suction pipes fitted with roses *yes* Are the roses always accessible *yes* Are the sluices on Engine room bulkheads always accessible *yes*

No. of bilge injections *one* and sizes *2 1/2"* Are they connected to condenser, or to circulating pump *circulating pump.*

How are the pumps worked *by rocking levers from intermediate engine piston rod crosshead.*

Are all connections with the sea direct on the skin of the ship *yes* Are they Valves or Cocks *both*

Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates *yes* Are the discharge pipes above or below the deep water line *above*

Are they each fitted with a discharge valve always accessible on the plating of the vessel *yes* Are the blow off cocks fitted with a spigot and brass covering plate *yes*

What pipes are carried through the bunkers *suction to forward* How are they protected *wood cased.*

Are all pipes, cocks, valves, and pumps in connection with the machinery accessible at all times *yes in engine room.*

Are the pipes, cocks, and valves arranged so as to prevent an unintentional connection between the sea and the bilges *yes*

When were stern tube, propeller, screw shaft, and all connections examined in dry dock *how new Launched 5th June 1886.*

Is the screw shaft tunnel watertight *no tunnel* and fitted with a sluice door *✓* worked from *✓*

BOILERS, &c.—

Number of Boilers *one* Description *circular multitubular* Whether Steel or Iron *Steel*

Working Pressure *150 lbs* Tested by hydraulic pressure to *300 lbs* Date of test *19th June 1886*

Description of superheating apparatus or steam chest *none fitted*

Can each boiler be worked separately *✓* Can the superheater be shut off and the boiler worked separately *✓*

No. of square feet of fire grate surface in each boiler *34.5 sq ft* Description of safety valves *Spring loaded* No. to each boiler *two*

Area of each valve *7.04* Are they fitted with easing gear *yes* No. of safety valves to superheater *✓* area of each valve *✓*

Are they fitted with easing gear *✓* Smallest distance between boilers and bunkers or woodwork *10"* Diameter of boilers *10' 10 3/8"*

Length of boilers *9.6"* description of riveting of shell long. seams *double strap double riv circum.* seams *double riv lap* Thickness of shell plates *15/16"*

Diameter of rivet holes *1 1/8"* whether punched or drilled *drilled* pitch of rivets *5.834* Lap of plating *11 3/4"*

Per centage of strength of longitudinal joint *81%* working pressure of shell by rules *151 lbs* size of manholes in shell *16" x 13"*

Size of compensating rings *6 1/2" x 1"* No. of Furnaces in each boiler *two*

Outside diameter *39"* length, top *6.44"* bottom *6.44"* thickness of plates *1/2"* description of joint *welded* if rings are fitted *yes*

Corrugated Greatest length between rings *6 feet* working pressure of furnace by the rules *154 lbs* combustion chamber plating, thickness, sides *11/32"* back *11/32"* top *11/32"*

Pitch of stays to ditto, sides *7 1/2"* back *7 1/2"* top *7 1/2"* If stays are fitted with nuts or riveted heads *nuts* working pressure of plating by rules *154 lbs* Diameter of stays at smallest part *1 1/4"* working pressure of ditto by rules *180 lbs* end plates in steam space, thickness *1"*

Pitch of stays to ditto *15 1/2"* how stays are secured *double nut & washer* working pressure by rules *150 lbs* diameter of stays at smallest part *2 1/2"* working pressure by rules *183 lbs* Front plates at bottom, thickness *3/16"* Back plates, thickness *3/16"*

Greatest pitch of stays *14"* working pressure by rules *150 lbs* Diameter of tubes *3 1/4"* pitch of tubes *4 5/8"* thickness of tube plates, front *3/16"* back *13/16"* how stayed *stay tubes* pitch of stays *9 1/4"* width of water spaces *1 1/2"*

Diameter of Superheater or Steam chest _____ length _____ thickness of plates _____ description of longitudinal joint _____ diam. of rivet holes _____

Pitch of rivets _____ working pressure of shell by rules _____ diameter of flue _____ thickness of plates _____ If stiffened with rings _____

Distance between rings _____ working pressure by rules _____ end plates of superheater, or steam chest; thickness _____ how stayed _____

Superheater or steam chest; how connected to boiler _____

HUL399-0001

Lloyd's Register Foundation

DONKEY BOILER— Description *No Donkey Boiler*

Made at _____ by whom made _____ when made _____ where fixed _____
Working pressure _____ tested by hydraulic pressure to _____ No. of Certificate _____ fire grate area _____ description of safety
valves _____ No. of safety valves _____ area of each _____ if fitted with easing gear _____ if steam from main boilers can
enter the donkey boiler _____ diameter of donkey boiler _____ length _____ description of riveting _____
Thickness of shell plates _____ diameter of rivet holes _____ whether punched or drilled _____ pitch of rivets _____ lap of plating _____
per centage of strength of joint _____ thickness of crown plates _____ stayed by _____
Diameter of furnace, top _____ bottom _____ length of furnace _____ thickness of plates _____ description of joint _____
Thickness of furnace crown plates _____ stayed by _____ working pressure of shell by rules _____
Working pressure of furnace by rules _____ diameter of uptake _____ thickness of plates _____ thickness of water tubes _____

SPARE GEAR. State the articles supplied:— *Two top end and two bottom end bolts, two main
bearing bolts, one set coupling bolts, one set feed and bilge pump valves.*

The foregoing is a correct description,

Charles O. Holman Manufacturer.

General Remarks (State quality of workmanship, opinions as to class, &c. *Workmanship Good*

*The Machinery and Boiler of this Vessel constructed
under Special Survey and placed onboard in accordance with
the Society's Rules, are now in my opinion in safe working conditions
The case is respectfully submitted as eligible for the
Notification *LMC 7.86* in the Register Book.*

The amount of Entry Fee £ 1 : - - received by me, *as Hall*

Special .. £ 8 : - -

Donkey Boiler Fee .. £ - : - -

Certificate (if required) .. £ - : - - *9/9/1886*

To be sent as per margin.

(Travelling Expenses, if any, £ ☒)

Committee's Minute

FRIDAY 10 SEPT 1886

+ M.L.

James Limes
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.